PHILADELPHIA MEDICAL TIMES.

SATURDAY, FEBRUARY 22, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 307.)

PHLEGMONOUS LARYNGITIS.

LARYNGITIS phlegmonosa (Bouillaud); *laryngitis submucosa* (Cruveilhier); *angina laryngea infiltrata* (Sestier).

This is a form of laryngitis in which the inflammatory processes affect especially the sub-mucous tissues. Though there is no doubt that it occurs sometimes as an idiopathic inflammation, it is seldom encountered as a primary affection, but rather as a secondary one following in the wake of erysipelas, typhus fever, pyæmia, and so on. It is to be distinguished on the one hand from œdema of the larynx, and on the other from the sero-purulent infiltration of the sub-mucous layers occurring in some cases of inflammation of the laryngeal mucous membrane. It is also to be discriminated from true erysipelatous laryngitis, with which it is not unfrequently confounded. For this discrimination we are mainly indebted to the researches of Bouillaud, Cruveilhier, Valleix, and Sestier.

This serious affection terminates in suppuration with destruction of the connective tissue, and sloughing of the superjacent mucous membrane; and in some cases leads to perichondritis and necrosis of the cartilages, principally the arytenoids. Chronic or permanent thickening of the sub-mucous connective tissue ensues, which may result in stenosis of the larynx. The mucous membrane is very apt to participate in the inflammation, sometimes in a great degree, perhaps always to some extent. Occasionally the inflammation spreads to the sub-mucous layers of the pharynx, and to those of the soft palate; under which circumstances it is apt to set up acute inflammation of the cervical and submaxillary lymphatic glands.

Its most frequent seat is the upper portion of the larynx, the base of the epiglottis, and the arytenoepiglottic folds, causing tumefaction of these structures, but to a less extent than that met with in œdema of the larynx.

It has been found beneath the glottis; but here it seldom gives rise to much respiratory trouble. The case of subglottic œdema related by Gibb, in which he found the infiltration simulating a morbid growth, was evidently of this nature.

Rokitansky remarks that the inflammation of the laryngeal sub-mucous connective tissue spreads thence along the inter-muscular and even subcutaneous connective tissue of the neck; and sometimes even starts from here. In these cases there is usually extensive sloughing, with fatal termination.

The symptoms of sub-mucous inflammation of the larynx are similar to those of œdema of the larynx; but they are less in degree, slower and more gradual in their appearance, and are attended with the phenomena of fever. Time is required for the inflammatory process to terminate in suppuration.

The treatment advocated for this affection is the early application of leeches externally, followed by warm fomentations, and free and extensive incisions from the exterior of the throat down to the purulent accumulations; but, as stated by Porter, we must not entertain too favorable an opinion of their efficacy. He says, "If the infiltration was limited in extent, or consisted of a serous fluid alone, or if it could be reached, or, being reached, could be evacuated, there would be a reasonable chance of relief for the patient; but the very opposite of these conditions is generally the true one. In diffuse inflammation of the neck, incisions may be made down into the diseased structure without giving exit to a teaspoonful of fluid, and, after death, the entire cellular tissue of the part engaged may be found of a dark-green and sometimes of a brown color, dead, putrid, and horribly offensive. The difficulty of breathing, however apparently severe, is only a secondary consideration; and even if removed, the patient would perish nevertheless of that low and typhoid condition which always attends these affections."

For similar reasons, Porter cannot admit even the contemplation of the operation of tracheotomy, which, he says, "could not succeed, and would not even possess the miserable second-rate merit of being a last resource, or offering a patient a chance of life." Nor is it recommended by Mr. Gray;* but Dr. Gibb thinks that it should be attempted to hold out a chance for life; and he mentions, in his work on "Diseases of the Throat," a case in which a very difficult tracheotomy was successfully performed, by Dr. Pollock, in St. George's Hospital.

ERYSIPELATOUS LARYNGITIS.

Though there can be no doubt that erysipelatous laryngitis occasionally occurs as an idiopathic affection, most of the cases which have been reported were encountered in hospital practice during the prevalence of epidemic erysipelas; but, since the general institution of the hygienic measures at present in force in every well-conducted hospital, it has been encountered much less frequently than formerly. It is usually attended with an erysipelatous inflammation of the palate, pharynx, or tongue, and sometimes preceded by a manifestation of this nature, which may extend from these structures outwards over the cheek. Sometimes the erysipelatous laryngitis occurs as an extension of external ery-

* Holmes's System of Surgery, vol. iii. p. 232, "Diffuse Inflammation of the Cellular Tissue of the Larynx."

sipelas of the scalp and face. Sometimes it* occurs as a sudden metastasis from erysipelas in some other portion of the body, and subsides externally† on its engaging the internal structures.

It is liable to terminate in œdema of the larynx, and thus to prove fatal by asphyxia. Diffuse abscesses of the sub-mucous connective tissue often ensue from the inflammatory process, the sloughs from which, on examination after death,—for this disease is almost invariably fatal,—present an appearance similar to that of analogous sloughs in the subcutaneous connective tissue, the result of erysipelas occupying the surface of the body. The depots of pus in these instances are found upon the external surface of the larynx, as well as in its interior, and may involve the epiglottis as well as any of the laryngeal cartilages. The trachea is sometimes invaded by the erysipelatous inflammation, and presents similar manifestations in its sub-mucous tissue.

The lecturer stated that his opportunities for observing this disease had been so few in number that he should rely mostly on the records of other observers for statements of the appearances manifested.

Dr. Gibb,‡ in his account of the affection as observed by himself, mentions that the sore throat is preceded by shivering and fever, there being "vivid redness and swelling of the fauces, difficulty of swallowing, and pain in the larynx," adding, that "the voice is hoarse, sometimes whispering, and, what is perhaps an early and an unfavorable sign, urgent dyspnœa is present." He also states that it is fortunate for the patient if the erysipelas appears externally, as there is then a prospect of recovery, for the activity of the symptoms subsides, and they gradually disappear.

In a case where the head and face were primarily affected with erysipelas, which had thence extended to the throat and larynx, Dr. Gibb found, upon making a laryngoscopic examination, "that the fauces were of a bright and shiny scarlet redness, and so was the mucous membrane covering the laryngeal surface of the epiglottis, the interior of the larynx, the vocal cords, and the trachea, associated with tumefaction, but not at that moment affected with œdema."

Ryland has detailed some cases in which there was no connection with external erysipelas, although erysipelas was prevalent at the time in the hospitals in which these cases occurred.

"Black tongue" is a popular term frequently employed to designate an epidemic erysipelatous inflammation of the throat and fauces. Prof. Gross,§ who observed many cases in 1844–45–46, when erysipelas prevailed extensively as an epidemic in this country, and often invaded the air-passages, thus describes the appearances: "The tongue was dry, excessively enlarged, of a dark livid hue, and incapable of protrusion; the uvula, tonsils, and arches of the palate were deeply discolored, rigid, and œdematous; the sub-mucous cellular tissue of the larynx and trachea was extensively infiltrated with serum, or serum and lymph; the lungs were inflamed, the bronchial lymphatic glands were softened, and the thoracic cavities often contained a considerable quantity of serum and pus. If the patient survived any length of time, profuse suppuration and sometimes even extensive sloughing occurred, abscesses formed in the neck and other parts of the body, and ulcers of different shapes and sizes appeared in the throat. The parotid glands sometimes suffered very severely." After giving a very graphic account of the low typhoid character of the symptoms attending erysipelatous laryngitis, he adds, "The danger of this disease is generally imminent, most of the cases terminating fatally within the first four or five days, the immediate cause of death being asphyxia or exhaustion."

After death the parts are found in a sloughy condition, of a red, brownish, or greenish color, a purulent infiltration occupying the tissues of the epiglottis, ary-epiglottic folds, and even the glottis; a coating of lymph is often seen upon the free surface of these structures. The trachea is apt to be more or less reddened, but the œsophagus generally remains quite free from any traces of inflammation.

As already intimated, most of the reported cases have terminated fatally; still, a few are stated to have recovered. The treatment recommended is nutritive, tonic, and stimulant from the very commencement of the affection, with the use of anodynes to allay pain and repress cough; the most suitable tonics being the tincture of the chloride of iron in combination with quinia. Ryland and Gross favor the use of leeches externally in young and robust subjects, and the subsequent application of blisters. The inhalation of steam from hot water is stated by Ryland to form a valuable topical application, often relieving the dry and inflamed condition of the mucous membrane. Dr. Gibb, in his case, in addition to the nutritive, tonic, and stimulant treatment internally, made a local application, every six hours, of a solution of nitrate of silver, four scruples to the ounce of water. Supraglottic œdema, he states, was about commencing when the topical agent was first applied. In twenty-five hours the most marked relief had taken place, and in forty-eight hours the patient was out of danger and the erysipelas was slowly subsiding externally. When symptoms of asphyxia are present, or when the dyspnœa is excessive, tracheotomy is recommended by Ryland, Gross, and Gibb, but it is unhesitatingly condemned by Porter; nor did the lecturer recollect a single case reported in which the patient was saved by this means. "The progress of the disease," says Porter, "cannot be checked by any operation; and, instead of affording even temporary relief, its tendency must be to accelerate the event." When we reflect that Porter extolled tracheotomy in many cases of laryngeal disease where it was condemned by others, we must give due consideration to this decidedly unfavorable opinion of the efficacy of the operation in this affection.

ABSCESS OF THE LARYNX.

Primary abscess of the larynx is a very infrequent disease. Abscess of the larynx can nearly always

* Gibb, The Throat and Windpipe, p. 232. † Porter, p. 95.
‡ Loc. cit.
§ System of Surgery, 1872, vol. ii. p. 385.

be recognized with the laryngoscope. The first case of this seen was reported by Türck,* but was one of secondary abscess resulting from extensive perichondritis. Many other cases have been observed since, the lecturer having frequently detected them. Navratil† mentions a remarkable case of laryngeal abscess involving the right side of the epiglottis, the ary-epiglottic fold, and the arytenoid of the same side. After the spontaneous discharge of an ounce of blood and pus, on the sixteenth day of the disease, Navratil saw by the laryngoscope the ragged edges of the ruptured abscess, and that it had started from the right ventricle.

A very interesting history of primary abscess, occurring in a child four years old, and terminating in fatal stenosis, will be found in *Schmidt's Jahrb.*, Bd. 118, 1863. Another very instructive case is reported in the *Lancet*, 1868, p. 757, by Dr. Marcet and Mr. Hillman. In this case the abscess was opened twice at an interval of three months, and finally a tracheal tube had to be inserted, which was not removed for several months.

Abscess of the larynx, as a rule, however, is a secondary affection, the result most frequently of perichondritis or of chondritis of the laryngeal cartilages; but in some instances it has ensued upon some systemic disease, such as typhus, pyæmia, glanders, etc.

Abscesses of the larynx, unattended with severe pain or dyspnœa, may yet prove rapidly fatal. Stromeyer relates the case of a cavalryman who was on parade at noon and was suddenly suffocated at five in the afternoon. The tongue and larynx of the man were sent to him by Surgeon Döring. He found an abscess the size of an acorn at the base of the epiglottis, and this had led to fatal œdema glottidis. The man had not reported himself as sick, although he had complained at home for a few days about an uncomfortable irritation in his throat.

Abscesses of the larynx sometimes attend typhus fever. Small abscesses form beneath the mucous membrane, and larger ones beneath the perichondrium. They appear, fortunately, in but few cases, and during the second and third weeks,—sometimes not until the period of convalescence. Sometimes they are associated with similar conditions of the nasal passages, palate, and pharynx. The laryngeal complication is usually indicated by cough and dysphagia. Sometimes œdema of the larynx is also added.

A laryngeal abscess is generally seen in the laryngoscopic mirror as a glistening circumscribed swelling, red in color at its base, sometimes red, sometimes yellowish at its apex. The locations in which abscesses have been most frequently observed are upon the lower laryngeal surface of the epiglottis, upon the inner surfaces of the arytenoid cartilages, upon the inner surface of the meso-arytenoidal fold, and surmounting the eminences of Santorini. An abscess of the larynx will in time open spontaneously into the cavity of the larynx. Under certain circumstances, when it can be seen in the laryngoscopic mirror, it can be punctured by a properly-curved knife. As soon as the abscess is opened, the pus is discharged by cough, and then there is usually immediate relief to all the symptoms of pain, tension, and hoarseness.

Occasionally a second abscess will follow closely on the first, and sometimes be succeeded by a third, or even by a fourth, some months later.

It may happen that a case of abscess of the larynx may be recognized under circumstances of inability to open it. If it should be in such a location as to impede the motions of the muscles controlling the patency of the glottis, whether by pressing upon them or by exciting serous infiltration into their tissue, the question of the propriety of performing tracheotomy will have to be considered, especially if there be any manifestation of a tendency to spasm of the glottis.

* Klinik d. Kehlkopfkrankheiten, p. 185.
† Laryngologische Beiträge, 1871, p. 20.

CLINICAL LECTURE ON CHRONIC MYELITIS.

BY DR. H. C. WOOD, JR.

Delivered at the Philadelphia Hospital.

Reported by Dr. W. H. PARISH, Resident Physician.

(Concluded from p. 309.)

LET us now consider the case of the other man before us. We shall find it to be of an entirely different nature. His history is as follows:

Nelson S., a native of Indiana, æt. 30, gives us the following account of himself up to the time of admission to this hospital. He has never suffered from syphilis, but has led a most dissolute life, being addicted to the most excessive venery, so much so as to indulge his passion nightly, and often, according to his statements, four or five times during a night. In June, 1871, he for the first time experienced uneasy sensations in the lower extremities, with a weakness of the back. Soon there were positive sharp and shooting pains along the spine, with occasional muscular cramps over most of the person. He was now forced to quit work,—his employment being that of a harness-maker. Yet he continued to walk about for several months, and did not leave off his dissolute habits, though daily losing the strength of the muscles, chiefly of the lower limbs. In September it seems that the pains and cramps disappeared, but there remained a decided paresis of most of the muscles, especially of those of the lower half of the person. General sensation was also diminished. In November, 1871, while walking on the street, his legs suddenly entirely failed him, and he had to be carried home. From that time he was confined to his bed, and in a few days was unable to move the lower extremities in the least. During the succeeding winter there was a feeling as if a cord had been drawn tightly around the upper portion of the abdomen. In December he lost the power of emptying his bladder, and subsequently there was inflammation of that viscus, probably from distention. Afterwards incontinence of urine supervened. The bowels from the first were usually constipated. In February there was marked formication in the lower extremities. On admission to the hospital, May 9, 1872, there was almost complete paralysis of both lower limbs. He was altogether unable to walk, and could scarcely raise his heels from the bed when lying in the supine position. The muscles of the lumbar region were also paralyzed, and he could not turn himself in bed. There was numbness in the left upper and in both lower ex-

tremities. An induced electrical current showed the muscles of these members to respond but feebly, and there was decided loss of electro-sensibility, this loss being most apparent in the right lower limb. The prick of a pin produced strong reflex movements in the left, but not so strong in the right lower limb. There were no muscular spasms, no rigidity; the affected muscles lay quiet and flabby. There was no pain in the back. The bowels were constipated, and micturition, though frequent, was accomplished at will. The sexual functions seemed in abeyance. The urine was free from albumen. There were no evidences of cerebral derangement. The sight and hearing remained unimpaired. On the inside of the left foot the points of the æsthesiometer could not be recognized as two when one inch apart, but on the right foot they could. Nowhere in the left leg could the points be recognized when three inches apart. On the inner side of the right leg they were recognized when an inch and a half apart.

The man was ordered phosphorus, gr. $\frac{1}{50}$ *ter die;* the affected muscles were to be faradized, and a continuous current to be passed along the spine.

On June 1 the man was able to move the right lower extremity with much more facility than on admission; motion in the left lower limb was also slightly improved. Electro-contractility was also somewhat increased in both, the muscles of the upper responding much more decidedly than did those of the lower extremities. A sensation at one time felt, as of sand in the hand, had entirely disappeared. The man was able, but with some difficulty, to raise himself in bed, and could turn himself quite readily. The patient continued to improve until the 13th of June, when his temperature rose to 104° F., with pains in the lumbar and the left iliac regions. These symptoms, with a temperature occasionally getting as low as 100° F., continued until the 25th of the same month. At the beginning of this febrile attack the electricity and phosphorus were suspended. Quinine and other febrifuge medicines were given.

July 1.—Since the 25th of June there has been no fever. There seemed to have been no change in the muscles during the past month. Phosphorus and electricity were resumed.

August 1.—During the last two weeks there has been a slow but steady improvement. The arms have become restored to almost a normal condition. The muscles of both lower extremities seemed less flabby, though both the members were frequently bathed in a cold perspiration. Motion in both has improved. The sexual functions seem in abeyance still, though erections occasionally occur. The electrical treatment has consisted in the passage of a continuous current, obtained from fourteen cells of a large Stöhrer's battery, along the spine; the positive pole being above, the negative below. An interrupted secondary current was also applied; this directly to the affected muscles. These two currents were used on alternate but different days. The phosphorus, with occasional intermissions, had been continued. The constipation required remedies for its relief, and anti-dyspeptic treatment was sometimes resorted to.

December 1, 1872.—The man has been steadily improving. He has for several weeks been able to walk about in the ward with crutches, and now does so with two sticks. The muscles seem to be rapidly regaining strength. Constipation is not so troublesome. The urine is normal, and is passed naturally. There has been no variation in the course of treatment, excepting that strychnia was lately substituted for the phosphorus, but the change did not seem to answer, the patient stating that he had not as good control over his muscles as when taking phosphorus.

The symptoms in this case point first to a state of congestion and exhaustion of the cord; then, as these conditions became more marked, the symptoms became more serious, until positive paralysis resulted from, as I believe, myelitis, which did not, however, reach the condition of actual softening, although of that type. This opinion is founded upon the circumstance that the symptoms have been too persistent for congestion alone, and it seems impossible to restore to their normal state spots of fully-formed inflammatory softening. However, whatever the pathological change may have been, the result has been a triumph for modern therapeutics. Not many years ago this man would have been hopelessly bedridden.

But let us look for the cause of his earlier symptoms and of the final paralysis. Undoubtedly they were all due to excessive venery. Nightly, and occasionally repeatedly each night, he was in the habit of indulging his passion; nor did he desist when the earlier phenomena gave him a friendly warning. Of course many similar cases stop short of the severity of this one, and you, as professional men, must not forget a probable cause of many of the spinal troubles of your patients. Not long ago a man came to me, saying that he had suffered a wrench of the back, and was then experiencing uneasy sensations as of tingling and of formication along the lower extremities, with a diminution of muscular power. He felt nervous and weak generally, with a great loss of strength of the back and paresis of the legs. On pushing some questions, he stated that his wife was afflicted with nymphomania, and that, as a therapeutic measure in her behalf, he for two or three weeks had been having sexual intercourse with her from three to five times nightly.

The interesting feature of the case was that, although he had not had sexual intercourse for some months, the symptoms had not ameliorated in the least, and the man was really in a forlorn condition, scarcely able to attend to his work, whilst the exhibition of phosphorus sufficed in two or three weeks to restore him to his normal state.

During the sexual act there is doubtless a decided reflex excitement, with active congestion of the nervous centres, and especially of the cord. There is always in the crisis of the orgasm a local spasm, as of the seminal vesicles, and a semi-convulsive action of the whole muscular system, which sometimes amounts to a true spinal convulsion, and at all times points to an intense excitement of the reflex centres of the cord. Such functional excitement is always accompanied with more or less congestion, and in the old the blood-vessels of the brain have given way before the congestion attendant upon the orgasm, with the result of fatal apoplexy. After intense functional activity of a nervous centre there usually soon follows a state of more or less exhaustion, with a subsequent and gradual return to a normal condition. If, however, before this normal state is arrived at, the cause of the excitement again operates, the same process of excitement, congestion, and exhaustion is again gone through with. When this is repeated again and

again more frequently than the congestion can be relieved and the exhaustion recovered from, both of these conditions become permanent. The point I want to impress upon your minds is that in such cases there is not merely nervous exhaustion or spinal congestion, but *both together*, and that the congestion and the so-called inflammatory condition of the cord which supervene are really not a nutritive action above, but *below* the normal grade; not an inflammation, such as a phlegmon, but a perverted nutrition, in which all the actions bespeak loss of vital force,—a process more akin to softening of the brain than to acute inflammatory cerebritis.

The form of paralysis due to excessive venery is usually that of paraplegia accompanying inflammatory softening of the cord. I have never seen a case of sclerosis thus caused. With the different stages of congestion and exhaustion, or of inflammatory change, there will be more or less marked aberrations of sensation and motion, or, in other words, more or less complete paralysis.

If you have a patient with the earlier of these symptoms, what shall be your treatment? Of course an essential part of it must be the avoidance of the cause; for otherwise the medicinal treatment will be of no avail. The best way to effect this is to send your patient alone on a tour for a few weeks, if he be well enough. At any rate, insist upon his sleeping in another apartment from his wife, if married; as the only method of maintaining the necessary absolute abstinence is to keep out of temptation.

There are some who recommend ergot in such cases, saying that it produces a contraction of the smaller blood-vessels and thus relieves capillary congestion. Most probably it does have this effect; but I have obtained better results from the use of phosphorus than from any other remedy. As already insisted, when the patient applies for relief the congestion has ceased to be an active one, but is passive and attended with exhaustion. Phosphorus is believed to stimulate the circulation of the cord, and to thus relieve the passive congestion. Whether this be true or not, I feel very sure that it influences the nutrition of neural structures to a greater extent than any other known drug, not excepting strychnia. The latter is a powerful functional motor stimulant, but its power of influencing the nutrition of the cord is comparatively slight. Do not give phosphoric acid and think you are giving phosphorus. If you wanted the effects of sulphur, you would not give sulphuric acid. Be careful, too, in administering phosphorus in the pill form. Remember that the least particle of solid phosphorus coming in contact with the stomach will produce an ulcer,—a not insignificant complication. Dr. Percy, of New York, has lately suggested cacao butter as a suitable vehicle. This, he states, when melted, which it does at 100°F., will readily dissolve phosphorus, and thus, when cooled, an oily solution of the drug can be given in the pilular form. I have not put this suggestion to the test, and hence am unprepared to pronounce on its value. I have generally used an oily solution: phosphorus gr. xij in ol. olivæ f℥i. Of this I begin with one minim in mist. acaciæ, and gradually increase it to three or four minims thrice daily. The effect on the stomach must be watched; and if dyspeptic symptoms show themselves you must suspend its use. This drug will be found of considerable value in other cases of perverted nerve-nutrition, such as hypochondriasis and hysteria.

Electricity is another remedy that must not be neglected in the treatment of the various degrees of paralysis following excessive venery. It is, however, doubtful if an electrical current ever reaches the spinal cord. When passed along the spine, it never produces the least muscular movements; and yet if the cord of an animal be exposed and the electrodes be applied directly to that structure, violent muscular spasms will immediately occur.

There seems to be but little doubt, however, that a continuous electrical current passed along the spine is attended with positive benefit; but the good it does is most probably due to a reflex influence on the cord.

I am very much in doubt as to the possibility of galvanizing the sympathetic nerve when unexposed. Our attempts are never attended with any of the symptoms of irritation of that structure. The pupil has never thus been made to dilate; and it is hardly reasonable to suppose that any contraction of the blood-vessels takes place, as in all experiments on the lower animals the pupil has dilated *before* the blood-vessels became contracted.

In addition to the continuous current to be passed along the spine, let the individual muscles be faradized. Know your anatomy, and apply your current to each affected muscle, and thus give each exercise at least every other day, so as to check the tendency towards fatty degeneration which always accompanies the disuse of a muscle. Sometimes you will find the muscles to respond more decidedly to a slowly interrupted or to a continuous current. I have found that this current acts most forcibly upon the muscles when, instead of being simply interrupted, the currents are quickly reversed, by means of a pole-changer, at intervals of from one to a few seconds. In this way I have often been able to get a very active response in cases in which the induced current failed entirely, and the direct or continuous current applied in the ordinary manner produced only very slight results.

There is a simple rule in making a choice of the kind of current. Use a continuous or an induced current, as the one or the other produces the most muscular response. The muscles should also be daily rubbed and thoroughly kneaded, and stimulant embrocations may often be employed with advantage; and as soon as your patient can walk, even with crutches, cause him to exercise himself thus daily, but not to such a degree as to produce fatigue.

[January 27, 1873. The case No. 1 (supposed sclerosis) has, without specific treatment, improved in so far that, the tendency to spasmodic movements in his legs having nearly ceased, he is able to sit in an invalid-chair. There is also some apparent gain of power in his legs; but he is unable

to stand, and it is somewhat doubtful whether the apparent gain of power is not merely owing to the subsidence of the motor disturbance.

Case No. 2 (chronic myelitis), under the use of the treatment previously employed, has gained steadily since the date of the lecture (Dec. 5), with the exception of about two weeks, during which the hypodermic use of strychnia was tried with decidedly bad results. He now walks very well with the aid of a single cane, and can walk alone, although with a hesitating gait, which he says is due to weakness of the ankles. Shutting his eyes increases his embarrassment, but does not stop his walking.]

ORIGINAL COMMUNICATIONS.

THE MICROSCOPICAL STUDY OF BLOOD AND EPITHELIUM.

A Communication to the Biological and Microscopical Section of the Academy of Natural Sciences.

BY JAMES TYSON, M.D.,

Lecturer on Microscopy and Urinary Chemistry in the University of Pennsylvania; one of the Attending Physicians to the Philadelphia Hospital, etc.

IT is scarcely possible to study blood satisfactorily with a power of less than 300 to 500 diameters, such as is obtained with an American or English ¼-inch or ⅛-inch object-glass with the B eye-piece being suitable, and it will often happen that a higher power will be of signal advantage. If a drop of the newt's or frog's blood be placed on a glass slide and gently covered with thin glass around the edges of which a little plain oil is applied with a camel-hair brush, a preparation is made which may be studied for hours.

The nucleated oval red blood disks of these animals will be readily detected; though it must be remembered that the nucleus is not at once visible in the blood just removed from the animal. In a few minutes, however, it makes its appearance, and grows slowly more and more distinct, until it becomes the characteristic feature of the red blood disk, and will always serve to detect it. In many disks, in a simple oil preparation the nucleus remains for a long time invisible.

More difficult of detection, as well as more interesting, is the *white blood corpuscle.*

1. A little careful examination, however, will soon enable the beginner to recognize one form of these corpuscles here more easily than in human blood, because of its distinctly round, or, more accurately speaking, *spherical* form, as distinguished from the oval red blood disk. It also remains isolated, having no tendency to aggregate with others of the same kind, or with the much more numerous red disks. The round corpuscle being discovered, this first form is promptly associated with its decidedly *granular* appearance, caused by the presence of numerous highly refractile particles, whence the name *granular blood corpuscle.*

2. In addition to these, *smaller round cells*, paler and less distinctly granular, are found in the blood of the frog at all periods of the year. They correspond in size and character with the nuclei of the red blood disks. Others again of these are quite as large as the granular cells.

Some of these round cells appear as though perforated in one spot by a "punch," an appearance which might on hasty observation be attributed to the presence of a nucleus, but it is more decidedly circular and sharply defined. These are called "vacuoles," and the white corpuscles containing them "*vacuole cells.*"

Careful examination of all these forms will reveal changes of shape, but very much less lively than in the next form of corpuscle—

3. *The Amœboid Cell.*—The blood of the cold-blooded animals affords a most convenient field of study for these cells, since no elevation of temperature is ever required to induce them. The locomotive movements associated with the changes of form should also be patiently looked for. A large number of these cells can be demonstrated by placing a drop of newt's or frog's blood on a thin glass cover, which is placed, drop downwards, over a moist cell, made by applying a ring of putty of suitable diameter to a glass slide and placing a drop of water within its circumference. As the process of coagulation proceeds, and the ring of serum extends itself beyond the periphery of the clot, numerous colorless corpuscles of the amœboid kind migrate from the coagulum into the serum, and may be studied in numbers in this situation.

The property possessed by amœboid cells, during the continuation of their locomotive movements, of incorporating in their structure particles of coloring-matter, milk globules, or even, according to Preyer,* particles of the red corpuscles of extravasated blood of amphibia, should be carefully looked for.

4. A fourth form of colorless corpuscle which should be looked for in these bloods, especially in the spring and summer, is the *fusiform* or *linear-prolonged* cell, first described by Von Recklinghausen in Max Schultze's *Archiv*, Band ii. p. 137. They present a colorless cell-substance with a granular oval nucleus. The term "linear-prolonged" (Klein) is the more applicable, since they seldom, if ever, reach the elongated spindle shape we are apt to associate with the term fusiform, but are rather a "prolonged oval."

Although in these animals the amœboid movement is easily studied at ordinary temperatures, the application of heat greatly accelerates it, and makes it more decided. Increased temperature may be obtained by the careful application of the flame of the spirit-lamp to a metallic plate interposed between the stage-plate and the glass slide, or more satisfactorily by means of Stricker's warm stage. If the temperature, however, be raised above 40° C. (104° F.), the movements cease, and, according to Rollett, the cells harden.

EXAMINATION OF HUMAN BLOOD.

The method of examination of human blood is in no way different from that of the blood of the frog or newt. The circular biconcave shape of the red

* *Pflüger's Archiv*, Jahrgang 1868, p. 423.

disks is well known. The "reversal of lights and shadows" due to this biconcavity, the centre of the blood disk acting as a biconcave lens, and the periphery as a double convex, should be thoroughly studied. Careful focussing will show that the centre is bright and the periphery dark when the object-glass is within the focus, and *vice versâ*, as should be the case on optical principles,—the centre dispersing and the periphery collecting the rays, so that in the former case the more remote negative focus is to be focussed, and in the latter the nearer positive.

The *white* blood corpuscle is not so easy of detection in human blood as in that of animals whose red disks are round. The same general characters, however, belong to it. Its pale, faintly granular appearance, ordinarily round shape, indisposition to unite with others in the formation of rouleaux, and especially its *amœboid* movement, characterize it. The latter, even in human blood, in summer weather or moderately warm apartments, does not require heat to induce it; but it is accelerated by such addition.

Attention should be directed to smaller irregular collections of granular matter, apparently fragments, probably derived by fission or otherwise from the larger white blood corpuscles, and which are undoubtedly what have been mistaken by Salisbury and others for vegetable spores, and especially described by Zimmermann* as "elementary corpuscles," under an erroneous interpretation of their real nature.

In all white corpuscles the granules are subject to the well-known "molecular motion" or "Brunonian" movement, which may be studied with a power of 400 and upwards.

Reagents.—In none of the forms of the white blood corpuscle of the frog or mammalia is the nucleus, as a rule, readily detected without the addition of reagents. Individual corpuscles are found in which this structure is differentiated; but it is by no means general.†

After a little practice with the blow-pipe and gas flame, one can make very delicate and convenient capillary tubes dilated at the middle, so that they approach a spindle shape. These are very convenient for receiving and dropping the various reagents in common use, as the indifferent salt solution, distilled water, dilute acetic acid, etc. They are really much more convenient than any apparatus for dropping yet contrived.

1. *The Salt Solution.*—The first reagent with which blood should be studied is the "salt solution," a half per cent. solution of chloride of sodium, which is also called the "indifferent" solution, since it is intended to act indifferently as a substitute for blood serum, the natural menstruum of the blood corpuscle. *Serum* carefully drawn off from coagulated blood, or *aqueous humor* from the organ of vision, answers the same purpose more satisfactorily, the objection to the constant use of either being only in the difficulty of its preservation. The former may be kept in glass tubes for twenty-four hours, or in cool weather longer; but to avoid inaccurate observation the serum should be nearly fresh. None of these solutions should produce any appreciable effect upon the red or white blood corpuscles; the amœboid movements should continue, and the other appearances remain.

2. The next step is *irrigation with distilled water.* This is done by placing a drop of distilled water at one edge of the extemporaneous blood preparation, and at the opposite edge a narrow strip of bibulous paper, which is replaced by fresh strips as it becomes saturated. Thus is established a current from the drop of distilled water to the opposite edge, and the blood corpuscles are thoroughly "irrigated." The effect of this irrigation—the addition of a menstruum of less density than that in which the corpuscles normally float—is the absorption of such fluid by the corpuscle. This imbibition must be attended by a change of form in the red blood corpuscle, which becomes spherical and smooth instead of biconcave. This change of shape is not always uniform, taking place much more rapidly in some corpuscles, and more rapidly in some directions of the same corpuscle, than in others. The spherical form is assumed because it is that shape which furnishes the greatest capacity. Watching the corpuscle thus distended, the color at first is present. Gradually, however, and sometimes rapidly, as the action of the water continues, the color disappears from the spheroids; they become faint, ill defined, almost invisible, and finally disappear altogether.‡

(To be continued.)

* Rust's Magazine, vol. xlvi. p. 171.

† This is of course not due to any effect of the reagent in producing the nucleus, as has been stated by some, although the latter is altered by the former. That the nucleus is always present in the colorless corpuscle is proven by the use of high powers, in which, in consequence of the large angle of aperture, a more delicate differentiation of light and shadow results, and in consequence the nuclei are always visible even without the use of reagents. This advantage of the high powers was pointed out to me several years ago by Dr. Jos. G. Richardson. For the reason assigned, however, which may not be correct, I am alone responsible. I know of none better. The same is true of the nucleus of the oval red disk, of which we have said above that it is not generally visible by ordinary powers, while the disk is floating in the blood-vessels, or immediately after its removal from the body of the frog or newt. With high powers the nucleus, for the reasons above stated, is promptly discernible.

‡ Here again, for the reason assigned in the previous note, the higher powers enable us to discern the framework of the corpuscle for a longer time after the coloring-matter has altogether disappeared; affording another of the comparatively few instances in this department of microscopic inquiry in which high angle of aperture, rather than penetrating power, of which a low angle is a necessary condition, best serves us.

TRANSLATIONS.

VON OPPOLZER'S LECTURES ON DISEASES OF THE ŒSOPHAGUS.

Being the latter portion of the first part of the second volume of Oppolzer's Vorlesungen über specielle Pathologie und Therapie, Erlangen, 1872.

Condensed from the German of Dr. Emil Ritter von Stoffella,

BY DR. J. SOLIS COHEN.

III.

STENOSIS OF THE ŒSOPHAGUS.

THE *origin of stenosis of the œsophagus* may lie outside of the œsophagus, within the œsophagus, or in its parietes. In addition to this, temporary and recurrent constrictions of the œsophagus occur, due to spasmodic contraction. Extraneous œsophageal stenosis

may be due to various tumors, or to morbid hypertrophies of adjacent structures; such as goitre, tumors in the mediastinum, abscess or tumor in the trachea or between the trachea and the œsophagus, dislocation of the hyoid bone, cancer of the lungs or of the pleura, aneurism of the aorta, scrofulous abscess from caries of the vertebræ, etc. Most authors include enlargements of the cervical lymphatic glands among the causes of extraneous stenosis of the œsophagus; but Von Oppolzer has never seen compression of the œsophagus from this cause.

Intra-œsophageal stenosis may result from impacted foreign bodies; constricting cicatrices, the result of previous inflammation or ulceration, whether traumatic or otherwise; purulent accumulations between the layers of the œsophageal parietes; cancer of the œsophagus; fibroids, polypi, diverticula; morbid growths developed upon other structures and hanging in the œsophagus; thickening of the mucous membrane, and hypertrophy of the sub-mucous connective tissue and of the muscular tissues of the œsophagus; the last cause being more infrequent than the others.

The degree of constriction varies very much. In some instances it is so slight as to be barely recognizable; in others it may amount to almost complete, or even complete, closure. The most frequent seats of stricture are at the cardiac, and at the commencement of the thoracic portion of the œsophagus; but it may exist at any other point. The extent of the stricture is usually small, cases in which the constricted portion measures several inches being very rare. The extent of the constriction is usually dependent on its cause.

That portion of the œsophagus above the seat of stricture is usually dilated, and its parietes are often hypertrophied. If the stenosis has existed a long time, this hypertrophy may have undergone fatty degeneration, under which circumstance that portion of the œsophagus will be nothing more than a flaccid sac. Below the stricture, as soon as the narrowing is considerable, atrophy ensues, as a rule, the œsophagus becoming collapsed, its parietes thinned, and its mucous membrane pale and arranged in longitudinal folds.

The disease always progresses slowly and gradually. At first the impediment to deglutition is noticed only in swallowing hard and large morsels; an effort being requisite to force the bolus downwards. But the first bolus once down, those immediately following rarely produce further difficulty in swallowing. Intermissions of entire freedom from dysphagia, or almost entire freedom, occur at this stage, continuing for days at a time. After a time, small morsels only can be swallowed, and these, often, only after repeated efforts, accompanied sometimes by outside pressure with the hands, or the subsequent swallowing of liquids to force the morsel through the stricture. Finally, solid morsels cannot be swallowed at all, and, in extreme cases, not even liquids. The substance swallowed is returned immediately after deglutition, or a few moments subsequently, and is covered with mucus, alone, or mingled with pus, blood, or cancerous particles, according to the nature of the affection. If a sac-like enlargement of the œsophagus has become developed above the stricture, or paresis of the œsophageal muscles has taken place, then sometimes the ingesta will be detained for several hours, and be regurgitated, in a macerated or semi-decomposed condition.

The *auscultatory phenomena* perceived in stenosis are similar in certain respects to those attending œsophagitis, inasmuch as the swelling of inflammation, or the deposits of exudation, likewise constrict the calibre of the œsophagus.

Hamburger recognizes three grades of stenosis. Stenosis in the first or slightest degree, and which may be so moderate as to evade detection in catheterization of the œsophagus, may be diagnosed on auscultation, by the ascent of a bubble of air or a few isolated bubbles through the liquid bolus. Hamburger's explanation of the physical production of this auscultatory phenomenon is as follows:

"The solid or fluid bolus would be firmly and hermetically grasped by the pharynx and œsophagus during the entire duration of the act of swallowing. The column of air which fills the entire space of the œsophagus below the bolus would be forced through the cardiac orifice into the stomach, whence it would escape, without noise, by the same aperture, on the completion of the act of deglutition. As long as this column of air can escape in the usual way with the same rapidity as the bolus descends, swallowing is comfortable. If, however, at some portion of the œsophagus, its lower third, for example, the calibre is encroached upon by swelling of the mucous membrane, then the column of air below the bolus cannot escape with the necessary and customary rapidity; and the result is on the one side a painful distention of the diseased mucous membrane, and on the other a counterpressure, on the part of the column of air, against the descending bolus. If this bolus is liquid, a portion of the compressed air escapes upwards through the fluid. In these cases we hear, on diligent auscultation, the ascent of one or a few isolated air-bubbles through the liquid bolus after it has glided downwards. Many times this regurgitation of air is not complete,—that is to say, the air is not forced into the mouth; but we hear a sound as though one or more ascending bubbles of air assumed a higher position in the œsophagus, to be fully thrust out at a later moment. Inasmuch as this ascent of air-bubbles is not observed, as a rule, in the healthy œsophagus, it can be taken for granted, with every appearance of verity, in all cases where this slight sound caused by the regurgitation of isolated air-bubbles takes place, that there is a commencing obstruction in the œsophagus at about the locality whence the air-bubbles begin to ascend."*

If the stenosis is further advanced, say to a point corresponding to Hamburger's second degree, then the column of air contained in the œsophagus is so compressed by the descending bolus "that it no longer ascends by one or a few isolated bubbles, but by an entire series of bubbles, which stream rapidly upwards through the liquid bolus to establish their state of equilibrium; and there results the so-called *gurgling*, similar to the sound made on emptying a bottle."† In addition to this, there is an alteration in the form of the bolus, which seems shortened in its diameter. These symptoms of the second degree of stenosis are very variable, according to Hamburger, changing in intensity, or even disappearing, to reappear soon afterwards. It is this variability in the auscultatory phenomena that Hamburger designates as characteristic of this stage,—the increased or diminished amount of constriction in which, he believes to be dependent upon diverse factors; such as the amount of mucus at the seat of stricture, the amount of tension of the muscular coat, etc.

In the more advanced grade of stenosis, Hamburger's third grade, "the compression of the air is still more marked; and, as this compressed air suddenly forces its way upwards, it drives the liquid bolus before it (though not always into the mouth) with a markedly audible resounding noise."‡ Hamburger designates this sound as "resonant regurgitation" (*schallendes Regurgitiren*). As an additional auscultatory evidence of this severe grade of œsophageal stenosis, we hear either no sound at all, during deglutition, along the entire track of the œsophagus below the seat of stricture,

* *Medicin. Jahrbücher der k.k. Gesellschaft der Aerzte in Wien*, xviii. Band, 3 Heft, pp. 158–159.
† Op. cit., p. 159.
‡ Op. cit., p. 160.

or at most a slight leakage-sound. If, as is often the case, a dilatation of the œsophagus exists above its constricted portion, certain other auscultatory evidence is obtained, the details of which, to avoid repetition, will be described in connection with the subject of dilatation of the œsophagus.

The *progress* of stenosis of the œsophagus is essentially chronic; modified, in special cases, by the nature of the cause. As a general rule, stenoses of the œsophagus continue for years, if they are not carcinomatous; inasmuch as hypertrophy of the œsophagus above the constricted portion often takes place, in connection with the ordinary dilatation, to such an extent as to be able to overcome the obstruction to deglutition and force the bolus downwards. If the constriction has become very great, or if a paresis of the œsophagus sets in, so that, from one or the other of these causes, fluid nourishment cannot be swallowed at all, or can only be swallowed in insufficient quantity, then a rapidly progressive marasmus ensues, attended towards the last with the abandonment of every effort at deglutition. In some cases the lung undergoes gangrene as a result of inanition; and occasionally, in addition, retro-pharyngeal or retro-œsophageal abscess is developed.

The *diagnosis* is founded principally upon the results of explorations with the œsophageal sound. As additional evidences, we have, besides those furnished by auscultation, the difficulty in swallowing, and the regurgitation of food. By means of the œsophageal sound we endeavor to learn the seat of stricture, its extent, and the amount of encroachment upon the calibre of the passage. Sometimes, by means of a gutta-percha bougie softened in warm water, we can obtain an impression of the form of the stricture. In those cases where the stricture is high up it is also possible to observe it by means of the œsophagoscope.

Having determined that a stenosis of the œsophagus exists, it is necessary to discover its nature. In general this is not a matter of difficulty; but in special cases, where the constriction is due to aneurism of the aorta, or a mediastinal tumor, or a polypus, or a disease of the larynx, etc., it may call for very careful investigation, not infrequently including examination of the larynx with the laryngoscope. If there is no ostensible local cause for the stenosis, such as a burn, or a scald, or the retention of a foreign body, etc., and if examination of the chest, larynx, trachea, vertebræ, etc., reveal no disease which can account for the constriction perceived by the œsophageal sound, then it is quite likely, especially when the patient is rather advanced in life, that the constriction is cancerous. Positive diagnosis of such a condition is confirmed only upon the appearance of broken-up cancerous matter.

An occasional interchange with spasm of the œsophagus might lead to deception early in the case, but not long; for spasm is usually accompanied with other nervous phenomena, continues only for a short time, and then disappears entirely; while in so-called organic stricture the intermissions are only occasionally complete and occur only in the early stages of the affection, becoming less and less frequent as the disease progresses.

The *prognosis* depends upon the degree of stenosis, and the cause which has given rise to it. If the cause is not incurable, and the constriction moderate, a cure, or at least relief, is to be expected from judicious treatment. Unfortunately, this anticipation can only be occasionally realized, by reason of the nature of the causes.

The *treatment* requires, above everything else, a removal of the cause. Foreign bodies must be forced into the stomach, or be extracted; abscesses which press upon the cervical portion of the œsophagus must be opened; polypi which lie upon the inner wall of the œsophagus, or reach into its interior, must be removed by knife or galvano-cautery; and so on.

If there is simple narrowing of the calibre of the œsophagus from thickening of its walls, a result of pre-existing inflammation, absorption of the products of exudation is to be sought for in the internal administration of iodine. Where this cannot be effected, or where the constriction is due to the formation of cicatrices, then we resort to catheterization and cauterization of the œsophagus; methods from which good results have followed in the hands of Gendrin, Trousseau, Bretonneau, and others. Very often the following method, suggested by Jameson and improved by Svicer, will be found the most desirable: a silken string attached to a metallic ball is drawn through a tube; this is then passed down the œsophagus; the tube is withdrawn, and the metal ball, with the string attached, allowed to remain.

In spite of the many methods of dilatation, death may be imminent if relief is not promptly afforded; then there remains only the choice between the operations of internal œsophagotomy and the formation of a gastric fistula. For the first purpose Dolbeau has devised an instrument composed of a thin metallic sound, with an olive-like extremity, in which two small knife-blades are concealed. The end of the instrument is to be carried beyond the stricture, the knives exposed by means of a spring connection, and the instrument withdrawn. In this way the constricted portion of the œsophagus is incised. Dolbeau achieved brilliant results in this way in two cases of very marked constriction of the œsophagus. Trélat, who had previously performed a similar operation, but by cutting from above downwards, acknowledges the greater safety of Dolbeau's method.

Gastrotomy, and the establishment of a gastric fistula, has been recommended by Sédillot and Nasse,* but, so far as Von Oppolzer's knowledge goes, has not yet been performed on the human subject. This course would not be resorted to under circumstances where the cause is itself fatal; for example, in cases of cancer, or in aneurism of the aorta.

If the stenosis is cancerous, everything must be avoided which might compromise the strength and nutrition of the patient. The internal use of iodine or mercury is unjustifiable. The subcutaneous injection of morphia is to be resorted to to subdue pain. The occasional introduction of the œsophageal sound will often be of great service. If catheterism of the œsophagus is no longer practicable, we resort to the use of nutritious enemata and baths, in order to sustain, as long as possible, the waning strength of the patient; though no special success can be hoped for from these measures apart from the advantage of keeping up nourishment.

The employment of electro-therapeutics holds out no hope of success in these cases, speaking from the present stand-point of science on that subject.

Finally, in all cases of stenosis of the œsophagus, let the cause be what it may, nourishment should be administered as far as possible in the form of broths and other liquids, in the most concentrated forms, and in small and frequently-repeated portions. If the stenosis is so great that the patient can no longer swallow any food, we must attempt as long as possible to introduce a tube and inject the nourishment through it.

PRINCE BISMARCK is said to be suffering from chronic poisoning, effected by means of letters sent to him; and his wife, who always aids him in his correspondence, "is suffering from an unaccountable feebleness." As this item comes around by way of St. Louis, and smacks somewhat of a bygone age, we must regard it with some degree of doubt.

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* Comptes rendus des Séances de l'Acad. d. Sci., tome xxiii. no. 4.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

PUBLISHED EVERY SATURDAY BY
J. B. LIPPINCOTT & CO.,
715 and 717 Market St., Philadelphia, and 25 Bond St., New York.

SATURDAY, FEBRUARY 22, 1873.

EDITORIAL.

THE EX-EMPEROR'S CASE.

IT was naturally to be expected that the medical press would comment freely on a case so full of interest, in many points of view, as that of the late Emperor of the French. It is probable that a man in private life, who in 1870 had been able to command the services of such eminent medical advisers, would have been able also to adopt their counsel. For there can be no doubt whatever of the genuineness in every respect of the report drawn up at that time, and signed by M. Sée, but never, for some unexplained reason, either signed by the other consultants or presented formally to the Empress. Those gentlemen, MM. Nélaton, Ricord, Fauvel, and Corvisart, must have known, as did M. Sée, that the Emperor was, from the mere fact of his having a vesical calculus, unfit for the arduous scenes upon which he was about to enter. And, indeed, it must be considered wonderful that the fatal issue was so long postponed, under the excitements and depressions of his subsequent career.

Why lithotrity was preferred to lithotomy by the eminent men who had charge of the Emperor in his last days, does not exactly appear. It seems as if the physical effect of the latter operation would have been more immediately beneficial, while its moral advantage, in the removal of the most palpable offending cause, would have unquestionably been great. Nor can we think that chloroform was without a hurtful depressing influence.

The statement that the cause of death was "failure of the heart's action" means nothing at all. "Uræmic poisoning" would have been the obviously accurate phrase for the lesion.

We cannot understand why there is no mention, in the report of the post-mortem examination, of the condition of the prostate gland. It is merely stated that "the mucous membrane of the bladder and prostatic urethra exhibited signs of subacute inflammation." An exact note of the existence or non-existence of prostatic enlargement should certainly have been placed upon record.

Sir William Gull's additional expression of opinion as to the relation in point of time between the cystitis and the calculous deposit seems to us, if it has any force at all, to be rather a reflection upon the surgical treatment of the case; since the stone certainly existed in 1870, and a cystitis dating so far back would surely have constituted a serious objection to lithotrity.

In conclusion, we cannot but contrast this case with that of the Prince of Wales. In the former, the patient's public position seemed to compel him to neglect his physical welfare; in the latter, it may be said to have been the source of his safety. In the former, the precautions which any laborer could have observed had to be thrown entirely aside; in the latter, there was an unlimited command of every resource of care and skill.

PHYSICIANS AND DRUGGISTS.

IN November last, as we learn from the *American Journal of Pharmacy*, a communication was addressed to the Maryland College of Pharmacy by a committee of the Medical and Surgical Society of Baltimore, enclosing the following preamble and resolution, which had been adopted by the latter body:

Whereas, We, the physicians of the city of Baltimore, have been grossly injured by the practice of druggists prescribing across the counter, and the indiscriminate renewal of prescriptions without the physician's order; and, whereas, we do not consider the course of study usually pursued by druggists as qualifying them for the practice of medicine; and, whereas, we consider such a course as extremely hazardous to the public and very unjust to the physician; and, whereas, we deem it proper that harmony should exist between the physician and druggist, in order to further the interests of both parties, and at the same time to conduce to the welfare and safety of the patient: therefore be it

Resolved, By the Medical and Surgical Society of Baltimore, that a committee of ten be appointed by this Society to lay our grievances before the Maryland

College of Pharmacy, and request the appointment of a similar committee by that body, to devise means to do away with the acts complained of.

The College of Pharmacy acceded to this request, and the desired conference was held on the 14th of January. The rather meagre account of it given in the *Journal of Pharmacy* says that the charges against the druggists were these:

1. Apothecaries prescribing across the counter.
2. Repeating prescriptions without the order of the prescribing physician.
3. Advertising patent medicines by show-cards, bills, etc.

It is further said that

Prof. J. Faris Moore was the principal speaker for the pharmacists, and met the different charges ably and forcibly. In his argument he stated that the physicians were responsible for many of the existing irregularities, that he had a list of not less than seventeen nostrums, including trade deceptions, which were prescribed by leading physicians of Baltimore, from Winslow's Soothing Syrup to Hubbell's Elixir of Valerianate of Ammonia; and that the prescription business could not, therefore, be conducted without keeping quack nostrums. His remarks on the subject of popular elixirs, like a two-edged sword, cut on both sides.

After a long and friendly discussion, the following resolutions were adopted:

1st. *Resolved*, That, although it is perfectly admissible for druggists to sell any article for which customers may ask, whether orally or by prescription, yet it is highly objectionable for druggists to prescribe for customers under any circumstances, except to meet an emergency.

2d. *Resolved*, That, with the permission of the Societies we represent, this Committee of Conference shall solicit the passage of a law by our State Legislature looking to the regulation of the sale of poisons in this State.

3d. *Resolved*, That the display by druggists of signs calling attention to the sale of patent medicines be considered disreputable.

Another conference was to be held on the first Tuesday in the present month; but we have not as yet seen any report of its results. We have before taken occasion to speak of the matter under discussion, and wish that in our own and other cities even stronger action might be taken towards the establishment of a fair understanding between the medical practitioner and the apothecary. It is certain that there is a vast deal of prescribing, and of recommendation of patent medicines, and of redispensing of old prescriptions, on the part of druggists, to the injury of both physicians and the public. More energetic action, and more decided results, than those of the Baltimore conference, are, however, necessary, if any permanent good is to be accomplished.

We cannot but believe that the appointment of the Examining Boards in this and other States, to insure a better class of pharmacists, is a great step in the right direction, and will make it far easier for the medical profession to bring about a truer relation between themselves and those who should be their aids, but who are now too often their opponents.

CORRESPONDENCE.

COLLECTION OF PHYSICIANS' BILLS.

EDITOR PHILADELPHIA MEDICAL TIMES:

SIR,—It is true that a long-followed custom becomes at last almost, if not entirely, a law; no matter how absurd or inconsistent the custom may happen to be. The old established rule among physicians, of rendering their bills for professional services but semi-annually or annually, has been so long followed as to appear as much a law as though it occupied a place on the statute-book. Notwithstanding that such a custom has been long observed and followed up, it has been the means of great injustice being done to the profession generally, and particularly to those just commencing practice, unless they may be possessed of enough of this world's goods to be able to live without reaping any pecuniary benefit from their professional labors. If they happen to be (as is often the case) in circumstances such as oblige them to depend upon their daily earnings for support, and feel in duty bound to follow the custom marked out for them in regard to the periodical rendering of bills, they soon find but a very narrow margin between them and starvation. There are those whose circumstances will allow their accounts to run for an indefinite length of time, knowing that their bills when rendered will be promptly met by a check drawn upon the well-filled exchequers of their worthy patrons; but they comprise but a small minority of the whole profession. Merchants, mechanics, or other business men have no compunctions of conscience in rendering their monthly statements to physicians, and pressing their payment, when they would no doubt feel indignant were their family physicians to send them their bills monthly, instead of semi-annually or annually, as *they* know the custom to be. Mechanics or laboring-men who receive their wages weekly (as is customary) are as well able to settle their accounts on Saturday night as on December 31, and would in all probability settle a small bill with more ease and grace at the end of the week than a large one at the end of the year. The game has become such a losing one to physicians that some change seems necessary, and we only need a move in the right direction,—a move which will require the more frequent rendition of bills, which will in many instances bring about settlements that would have passed

out of mind if six or twelve months were allowed to elapse between the date of attendance and the rendition of a bill for the same. An initiatory step has been taken in this direction by a number of physicians composing one of the coteries in the northwest part of the city, by passing a resolution that in future all bills sent shall have printed on them the words "*Bills rendered monthly*," and that all bills be thus often rendered unless still in attendance on the patient. There seems to be a determination, on the part of the physicians referred to, to follow out the letter and spirit of the resolution, and we hope other organizations, and the profession generally, may give it a trial, and see if much good may not result therefrom. B.

[We may remark that the above views are in entire accord with an editorial headed "Black Lists," in our issue of December 21, 1872. We believe that every physician would gain by simply adopting the plan of sending monthly bills, without waiting for the formal sanction of his fellows for so doing; and that both he and his employers would fare better in the end.—ED.]

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

SIXTY-SEVENTH ANNUAL MEETING.

Reported by JAMES S. BAILEY, M.D.

FIRST DAY'S PROCEEDINGS.

THE Medical Society of the State of New York met at Albany, February 4, 1873, in the public hall, Perry Building. The meeting was called to order by the President, Dr. C. R. AGNEW, of New York. Prayer by the Rev. Dr. CLARK, after which the President read his inaugural address.

The President then announced the following committees:

On Credentials, Drs. W. H. Craig, A. L. Saunders, and C. E. Rider.

Business Committee, Drs. Ellsworth Eliot, J. V. Kendall, G. H. Hubbard.

Committee on Arrangements and Receptions, Drs. J. V. P. Quackenbush, W. H. Bailey, Darwin Colvin.

Committee on Medical Ethics, Drs. Thomas Hun, of Albany; E. R. Squibb, of Brooklyn; D. B. St. John Roosa, of New York.

The President then introduced Dr. G. W. BARR, of Titusville, delegate from the Pennsylvania Medical Society.

Dr. ELIOT, Chairman of the Business Committee, announced a paper by Dr. George Burr, of Binghamton, to be read by Dr. William C. Wey, of Elmira, Dr. Burr being absent. Subject of paper: "A Case of Occlusion of the Femoral Artery from Fracture of the Femur, followed by Mortification and Amputation." It was referred to the Committee on Publication. The Business Committee also announced a paper by Dr. E. H. Bridges, of Ogdensburg. Subject: "Disease of the Left Ovary resulting in Fatal Hemorrhage." Referred to the Publishing Committee.

The following papers were read by title: "Obituary Notice of Dr. Darius Clark," by Dr. B. F. Sherman; "Hernia," by Dr. J. H. Pooley, of Yonkers; "The Effects of Railroad Travel on the Health of Women," by Dr. Ely Van De Warker; "Idiopathic Peritonitis," by Dr. Joseph Lewi, of Albany; all of which were referred to the Committee on Publication.

Dr. D. B. ST. JOHN ROOSA, of New York, read a paper entitled "History of the Progress of Otology," which was discussed by Dr. Knapp, of New York. It was referred to the Publishing Committee.

Dr. WILLIAM B. ALLEY, of Nunda, read a paper on "The Ultimate Result of Nerve-Injuries in Gunshot Wounds," which was discussed by the members of the Society.

Dr. ROOSA offered the following:

Resolved, That the Business Committee be requested to consider papers that may be presented by invited members of the Society, and cause them to be read if thought expedient.

The Society then adjourned until 3 P.M.

AFTERNOON SESSION.

Dr. AGNEW, President, in the chair.

Dr. J. W. S. GOULEY, of New York, read a paper on "Perineal Lithotomy," which was discussed by Dr. Krackowizer, of New York, and Dr. Hutchison, of Brooklyn.

The President announced the following Committee on Nominations:

First District, Dr. J. C. Hutchison; *Second*, Dr. J. Foster Jenkins; *Third*, Dr. H. B. Whiton; *Fourth*, Dr. Alexander Ayres; *Fifth*, Dr. Alonzo Churchill; *Sixth*, Dr. William C. Wey; *Seventh*, Dr. Caleb Green; *Eighth*, Dr. H. W. Dean.

Dr. VANDER POEL read his report in regard to changing the time of meeting of this Society.

On motion of Dr. Eliot, the report was received, and the discussion postponed till the evening session.

Dr. THOMAS ADDIS EMMET read a paper on "Laceration of the Perineum, involving the Sphincter, and Operation for Securing Union of the Muscle." It was referred to the Committee on Publication.

Dr. E. H. PARKER remarked upon a case of "Dislocation of the Tarsus from the Astragalus," exhibiting the specimen.

Dr. E. M. MOORE, of Rochester, read a paper on "Intra-Capsular Fracture," illustrated by two cases. It was discussed by Drs. Gurdon Buck, Douglas, and A. N. Bell.

Dr. ELIOT, from the Business Committee, read the following papers by title, and they were referred to the Publishing Committee:

"Case of Fatty Tumors of the Abdomen," by James S. Bailey, M.D.

"Senile Hypertrophy of the Prostate Gland," by James S. Bailey, M.D.

"Unusual Case of Inflammation of the Urinary Organs," by S. T. Clark, M.D.

On motion, the Society adjourned, to meet at eight in the evening.

EVENING SESSION.

The Society came together at 8 P.M., Dr. B. F. SHERMAN, Vice-President, in the chair.

Dr. E. R. SQUIBB, of Brooklyn, Chairman of Committee on Pharmacopœia, read his report. The report, on motion, was accepted.

A paper entitled "Dropsy after Scarlatina," by Dr. George Douglas, was read by title and referred to the Publication Committee.

The report of the committee on changing the time of meeting of the Medical Society of the State of New York was then taken up, in accordance with the recommendation of the Business Committee. Various motions and amendments were submitted, and while the matter was under discussion a motion to adjourn to meet at nine o'clock on Wednesday morning was made, seconded, and unanimously adopted.

MORNING SESSION.

The Society met, agreeably to adjournment, at nine o'clock, Dr. AGNEW, the President, in the chair. No clergyman being present, the President opened the meeting with prayer. The Secretary read the minutes of Tuesday's sessions. On motion, they were adopted.

Dr. OLIVER WHITE, of New York, chairman of the Committee on By-Laws, through the Secretary, made his report. The report was received.

Dr. F. N. OTIS, of New York, read a paper on "Strictures of the Male Urethra, with Results of Operation with the Dilating Urethrotome."

Dr. Gouley, of New York, and Dr. Newman, of New York, discussed the paper.

Dr. ROOSA arose to a question of privilege, making remarks and explanations regarding a paper in the Transactions of last year by Dr. Stephen Rogers, of New York.

Dr. JAMES R. LEAMING, of New York, read a paper on "Plastic Exudation within the Pleura." Referred to the Publishing Committee.

Dr. CHARLES H. PORTER, Treasurer, made his annual report. On motion, it was referred to the following auditing committee, appointed by the chair: Drs. J. V. Cobb, H. Corliss, and Staats.

Dr. ELIOT offered the following:

Resolved, That candidates elected to permanent membership who neglect to pay the fee required by our by-law, for one year from the date of their election, shall forfeit their rights as permanent members.

Adopted.

Dr. A. N. BELL read his report on the "Quarantine Establishment of New York," being a report of the Committee on Hygiene.

Dr. A. B. BURGER, of Saratoga county, presented a specimen of a diseased kidney, with a description of the case. It was referred to the Publishing Committee.

Dr. WILLIAM T. LUSK, of New York, read a paper on the "Pathology of Labor Pains." It was referred to the Publishing Committee.

Dr. GURDON BUCK presented a case of reconstruction of the under lip. Referred.

Dr. COBB, of the committee to whom was referred the Treasurer's report, reported that they had examined the same and found it to be correct.

Dr. LEWIS A. SAYRE read a paper on "Diastasis of Head of Femur, and Formation of Artificial Hip-Joint." Referred to the Publishing Committee.

Dr. J. V. P. QUACKENBUSH read a paper on "Hydrorrhœa."

Dr. E. R. SQUIBB reported from the Committee on Ethics regarding the Niagara County Medical Society. The report was unanimously adopted.

An obituary of Dr. P. Van Olinda, by Dr. A. Van Derveer, was read by title and referred to the Publishing Committee.

On motion, the Society adjourned, to meet at 2.30 P.M.

AFTERNOON SESSION.

The meeting was called to order by the President, Dr. AGNEW. Dr. DOUGLAS made his report as delegate to the Connecticut State Medical Society. Dr. CORLISS reported as delegate to the Maine Medical Association. Dr. NEWMAN reported as delegate to the New Jersey State Medical Society.

Dr. JACOBI, from the Committee on Foundling-Asylums, made his report. Dr. JOEL FOSTER made a minority report on the same. On motion, the majority report was accepted and adopted.

Resolutions in regard to the Committee on Nominations, to the act relative to the medical laws of the State, and to the time of meeting of the Society, were presented and laid on the table.

Dr. B. L. HOVEY read a report of five consecutive cases of Colles' fracture. It was referred to the Publication Committee.

Dr. J. P. GRAY exhibited to the Society micro-photographs of brain-tissue.

Dr. H. KNAPP read a paper on "Hemiopic and Sector-like Defects of the Field of Vision, and their Connection with Diseases of the Heart and Brain." It was referred to the Publishing Committee.

Dr. J. P. PALMER, of Victor, Ontario county, read a paper on "Spotted Fever."

Dr. CORLISS read the "Biography of Dr. B. P. Staats, of Albany."

The following papers were read by title and referred to the Publishing Committee:

"Three Cases of Abscess and Pelvic Peritonitis from Ulceration of the Appendix Vermiformis, relieved by Operation," by Dr. R. B. Bontecou, of Troy; "Complete Dislocation of the Tenth Dorsal Vertebra Forwards," by Dr. Graves, of Steuben county; "On the Use of Atropine in Some Diseases of the Eye," by Dr. Edwin Hutchinson, of Utica—sent as a communication by the Oneida County Medical Society.

Dr. BABCOCK reported for the Censors of the Eastern District that they had examined E. V. Stryker and found him well qualified, and recommended him as a proper person to receive a diploma from this Society.

The Society convened in the Assembly chamber at eight o'clock, to listen to the annual address by the President, Dr. C. R. AGNEW.

THIRD DAY'S PROCEEDINGS—MORNING SESSION.

The Society met at 9.30 A.M., the President, Dr. AGNEW, in the chair.

Prayer was offered by the Rev. Mr. REEVES. The minutes were read and approved.

Dr. VANDER POEL, chairman of the Committee on the President's address, read their report, and after discussion it was accepted and adopted.

Dr. ROBERTSON, of Albany, read a paper entitled "Cases in Practice." Referred to the Committee on Publication.

Dr. J. MARION SIMS read a paper entitled "A Case of Enucleation and Removal of an Intra-Uterine Fibroid Tumor," with instrument for the same. Referred to the Committee on Publication.

Dr. WILLIAM C. WEY read a paper entitled "Some Observations concerning the Hypodermic Injection of Ergot in Uterine Fibroids."

It was discussed by Drs. Sims and Squibb, and by other gentlemen, and then referred to the Committee on Publication.

Dr. J. N. NORTHROP, of Albany, presented a case of congenital loss of the right arm, with remarks upon it.

Dr. Jacobi believed that it was a case of arrested development, the reasons for which he explained in full.

The Business Committee read the following papers by title:

"Penetrating Gun-shot Wounds of Cranium, with Recovery," by A. Van Derveer, M.D.

"Sequelæ of a Case of Purpura Hemorrhagica," by H. S. Crandall, M.D.

Dr. C. DEVOL presented two pathological specimens.

Dr. A. N. BELL offered the following:

Resolved, That the Standing Committee on Hygiene be added to, and hereafter recognized as one of, the Standing Committees under section 111, page 20, of Organization and By-Laws of the Society, and that said committee place itself in immediate correspondence with the county Societies.

Unanimously adopted.

Dr. A. N. BELL offered the following:

Resolved, That the Standing Committee on Hygiene

consist of seven members, one of whom shall be Dr. C. R. Agnew; the balance of the committee to be appointed by the chair.

Adopted.

The President appointed the following the Committee on Hygiene:

Drs. A. N. Bell, S. O. Vander Poel, H. D. Didama, H. W. Dean, John Ordronaux, Stephen Smith, C. R. Agnew.

The Nominating Committee reported through their Secretary, Dr. J. Foster Jenkins, the following nominations to office for the ensuing year:

For President, Dr. E. M. Moore, of Rochester; *Vice-President*, Dr. Francis Burdick, of Johnstown; *Secretary*, Dr. William H. Bailey, of Albany; *Treasurer*, Dr. Charles H. Porter, of Albany.

For Censors: Southern District—Dr. E. R. Squibb, of Brooklyn; Dr. E. H. Parker, of Poughkeepsie; Ellsworth Eliot, of New York.

Eastern District—Dr. John P. Sharer, of Herkimer; Dr. James L. Babcock, of Albany; Dr. G. H. Hubbard, of Lansingburg.

Middle District—Dr. M. M. Bagg, of Utica; Dr. Horace Lathrop, of Cooperstown; Dr. C. G. Bacon, of Fulton.

Western District—Dr. Caleb Green, of Horner; Dr. C. C. Wyckoff, of Buffalo; Dr. D. Colvin, of Clyde.

Dr. JENKINS offered a resolution, as a part of the report of the committee, that no one should be eligible for election to permanent membership until he had been a delegate for three years.

Dr. SQUIBB moved to amend this so as to require delegates to be present at the meetings and serve for three years. After considerable discussion, the resolution was carried as amended, and the report of the committee adopted.

Dr. F. B. A. LEWIS offered the following:

Resolved, That this Society extend their sincere thanks to the officers and members of the Albany County Medical Society for their munificent entertainment and warm reception of last evening.

Carried.

Dr. AGNEW made a few appropriate remarks in conclusion of his service as President.

On motion of Dr. ELIOT, the Society adjourned.

GLEANINGS FROM OUR EXCHANGES.

ELEVATION OF TEMPERATURE AFTER THORACENTESIS (Bourneville: *Le Mouvement Médical*, Dec. 28, 1872).—In the April number of the *Revue Photographique des Hôpitaux* (1872, p. 112) we reported the following two cases relating to the effects of thoracentesis upon the temperature:

Case 1.—L. P., æt. 32. Left pleurisy. Before the operation: Pulse, 84; Respirations, 18; Temp., Réaumur, 38°.4.

1200 grammes (about 3½ pints) of pale-yellow fluid drawn off. After the operation: P., 88; R., 24; T.R., 38°.4.

Case 2.—D., æt. 18. Right pleurisy. Before thoracentesis: P., 104; R., 24; T.R., 38°.9.

Three quarts of clear fluid drawn off. After operation: P., 104; R., 24; T.R., 39°.4.

Comparing these results with those that we observed after two abdominal tappings, we stated, "Though the evacuation of fluid contained within the abdominal cavity did not affect the temperature in a very sensible manner, we observe an elevation of temperature following thoracentesis."

The thermic phenomenon observed by us has lately been confirmed by M. Laboulbène, whose researches, contained in the *Gazette des Hôpitaux*, Dec. 21, we will now quote:

Case 1.—Male. Fluid drawn off clear, pale yellow, and fibrinous; 2605 grammes.

T.R. before thoracentesis, 38°.4; after thoracentesis, 38°.6.

Case 2.—Male. Fluid deep yellow, slightly turbid, fibrinous; 2000 grammes.

T.R. before thoracentesis, 38°.6; after thoracentesis, 38°.9.

Case 3.—Male. Fluid slightly turbid, yellowish, but having a rose tint, slightly bloody; 1050 grammes.

Case 4.—Male. Fluid clear, pale yellow, and fibrinous; 800 grammes.

T.R. before thoracentesis, 38°.4; after thoracentesis, 38°.6.

Case 5.—Male. Fluid perfectly clear, of amber color; 1830 grammes.

T.R. before thoracentesis, 38°.6; after thoracentesis, 38°.8.

Case 6.—Male. Fluid clear, slightly greenish, fibrinous; 1360 grammes.

T.R. before thoracentesis, 38°.6; after thoracentesis, 38°.8.

In the eight preceding cases it is seen that the temperature rises from two to five tenths of a degree after the performance of thoracentesis. It is very probable, as M. Laboulbène observes, that this elevation is due to the more regular and more complete performance of the act of respiration, the lung on the side corresponding to the pleuritic effusion being no longer compressed.

The number of cases is still too small to enable us to say whether this thermic phenomenon is a constant one. Attention being awakened to the point, it will undoubtedly not be long before we understand its significance. It will be equally interesting to see what influence is exerted on the temperature by abdominal tappings, by thoracentesis for hydrothorax, etc.

In regard to hydrothorax we ought here to report a very recent case. It is that of a woman, æt. 55, a subject of albuminuria, who occupies bed No. 20 of ward Saint-Alexandre (service of M. Charcot).

Considerable œdema of the lower extremities, ascites, and hydrothorax occurred. On the 26th of December, before the performance of thoracentesis, we noted—P., 96; R., 24–28; T.R., 37°.3. 280 grammes of clear, pale-yellow fluid were drawn off. Immediately after thoracentesis, we found—P., 88; R., 24–28; T.R., 37°.3; and an hour and a half later, P., 90; R., 24; T.R., 37°.2.

The thermometer remained in place the same length of time (four minutes) on both occasions. Ought we to attribute the absence of the elevation of temperature in this case to the relatively small quantity of liquid drawn off, or to the nature of the disease? We do not know; for to be authorized in forming an opinion on this point, it is indispensable to have a large number of cases.

A NEW ANÆSTHETIC OBTAINED FROM CHLORIDE OF CARBON (MM. Hardy and Dumontpalier: *Am. Journ. of Pharm.*, Feb. 1, 1873; from *Journ. de Pharm. et de Chimie*, Dec. 1872).—Chloride of carbon unites in definite proportions with alcohol, and furnishes a liquid which boils at a fixed temperature and possesses strong anæsthetic properties. To obtain it, 30.8 parts of chloride of carbon are mixed with 4.6 parts of alcohol, the mixture distilled, and the portion collected which boils at 66° C.

It is a colorless, transparent, mobile liquid, of an agreeable odor, and a density of 1.44 at 13° C. and at a pressure of 0.755. Its boiling point, 66° C., is below that of both its constituents, chloride of carbon boiling at 77° and alcohol at 78.5°. It is unalterable in the air,

volatilizes slowly, and burns with difficulty, the flame having a green margin. It is decomposed by water, sulphuric and hydrochloric acids, chloride of carbon being deposited. Aided by a moderate heat, nitric acid attacks it briskly, with the disengagement of red fumes and the separation of chloride of carbon, while the supernatant liquid yields oxalic acid.

Analysis leads to the formula $2CCl_4,C_2H_6O$. Its density, however, which in two experiments was found to be 4.2 and 4.1, does not correspond with the theoretical density required by this formula. Whether it be regarded as a compound or as a mixture, it is curious that it has a fixed boiling point, and all the physical appearances of a body of definite composition. Other analogous cases are known which have not yet been interpreted.

It acts as an anæsthetic, for which purpose its ethereal odor and its low boiling point render its application easy. Experiments were made with a dog of medium size; the mouth was kept closed, the inhalation took place from a sponge through the nostrils so that a certain quantity of air was likewise allowed to enter; fifteen grammes, in three portions, were sufficient. Comparative experiments, made upon the same dog, at intervals of several days, with chloride of carbon and with chloroform, in uniform doses of fifteen grammes, led the authors to the conclusion that the last two liquids act with greater intensity than the new substance, which, however, should be used with the greatest care in experimenting upon human subjects.

FRACTURE OF THE STERNUM (A. Desprès).—*Le Mouvement Médical* of the 31st of August, 1872, gives the report of the following case, taken from the *Gazette des Hôpitaux*. On the 25th of May, towards midnight, C., 59 years old, a cook by occupation, was attacked, when about to enter his house, by several individuals, thrown down, and beaten. He lost consciousness and remained prostrate for about half an hour; he then succeeded in entering his house, and was obliged to remain in bed for two days following the accident.

Soon after the injury he experienced severe pain in the sternal region and great difficulty in breathing. The pain was increased by motion and by the effort of coughing. When he entered the hospital, under the care of M. Desprès, the following note was made: dyspnœa marked; pressure upon the thorax causes pain; the same is true of motion. The patient coughs with great difficulty. Examination of the chest reveals well-marked ecchymosis in the sternal region, but there is neither deformity nor abnormal mobility; it is impossible to detect any crepitation when the patient is made to cough; his general condition is good; there is nothing particular revealed by auscultation.

On the following day, M. Desprès had a pillow doubled up under the back of the patient, in order to throw the head back and arch the trunk; then, on making pressure over the sternum, crepitation was felt at the middle part of the second piece, and nearly in the centre of the ecchymosis; a certain amount of mobility was also observed.

The case, therefore, was one of transverse fracture of the sternum without displacement.

A diachylon band was applied, and in six days the patient left the hospital, free from pain, excepting on full inspiration.

According to the authorities on the subject, transverse fracture of the sternum is rare; but is it not probable that a certain number, in consequence of incomplete examination, escape observation? This certainly would have happened in the case just related, if M. Desprès had not had recourse to the doubled pillow placed transversely under the back.

MISCELLANY.

THE Pharmaceutical Examining Board of Philadelphia have presented their first annual report to the Mayor. They state that they held, from May 20, 1872, to January 1, 1873, fifty meetings for the transaction of business. There were "504 applications for registration as proprietors received, of which number 292 were approved and certificates ordered to be issued. There have been 287 applications from clerks, of whom 250 appeared for examination as to competency and qualification. Certificates as 'Qualified Assistant' were granted to 185 of the applicants, and 65 were rejected as incompetent to be left in charge of a store. Since the passage of the act, 10 persons not graduates in pharmacy who wished to open retail drug-stores have been examined by the Board, five of whom received the necessary certificate of competency, and five were rejected as not possessing the requisite knowledge and qualifications.

"This record shows that of the number applying for the responsible position of proprietor of a store where the most deadly poisons were to be dispensed, fifty per cent. were judged by the Board to be unfit for it, and that only seventy-four per cent. of those who were to be left in charge during the absence of the proprietor were deemed competent for the post. At this date twenty-five proprietors and thirty qualified assistants have not called for or obtained their certificates, although duly notified to do so."

The Board further state that "the receipts from fees have been barely sufficient to meet the expenses, and the Board regrets the inadequacy of the law to provide the means for prosecuting those who violate it. No cases of fraudulent adulteration of medicines have been reported, but the sale of medicines has been continued in some localities by grocers; and copies of the law have been sent to all the retail grocers whose names appear in the business directory, to call their attention to the provisions restricting the sale of poisons and medicinal preparations to registered pharmacists."

XYLOL.—We take the following doubtful item from a daily paper:—

"The St. Louis *Democrat* contains the following letter:

"'BALTIMORE, MD., Jan. 25, 1873.

"'THE SUPERINTENDENT OF POLICE, ST. LOUIS, MO.:

"'SIR,—I would most respectfully call your attention to the new medical compound known as 'xylol,' which is now being used in this city for purposes of robbing and murder.

"'The mode of application is by mixing it with the feathers in a pillow, and, when the warmth of the head is applied to it, it gives off vapors similar in effect to the fumes of charcoal, and the person using it is found dead in the morning, which gives the monsters who apply the drug ample opportunity to possess themselves of the property of their victims and otherwise dispose of their remains.

"'The drug was tried upon myself here some time

ago by a German Jew, who invited me to stop in his house. I escaped his foul designs, and obtained a knowledge of his intentions and manner of proceeding, by trifling circumstances, the details of which I will not weary you with.

"'But, as I had lately read accounts of several persons being missing in this and other cities, I felt in duty bound to investigate the matter for the benefit of society at large. Consequently, I have devoted my leisure hours to it for the last two years, and have now acquired a perfect knowledge of the drug used, and I lose no time in communicating its name to you, that you may cause the officers under your control to put themselves into communication with the druggists, and keep a system of surveillance over those who purchase it. Hoping that you will also cause a notice of the hidden qualities of the drug to be sent to the police authorities in all the principal cities in the State of Missouri, I remain, sir, yours, very respectfully,

"'M. WALSHE, M.D.'"

AT a meeting of the Faculty of Jefferson Medical College, Philadelphia, January 14, 1873, the following minute was adopted:

"*Whereas*, The Faculty of the Jefferson Medical College of Philadelphia have heard with profound regret of the death of Dr. Warren Stone, of New Orleans, for upwards of a quarter of a century Professor of Surgery in the University of Louisiana, and for a still longer period the leading surgeon in the Southern States: therefore, be it

"*Resolved*, That they desire thus formally to record the sense of their high appreciation of his talents, and of the loss which the profession and the country have sustained in his demise.

"*Resolved*, That a copy of this preamble and resolution be sent by the Dean of this Faculty to the family of the late Professor Stone, with the assurance of their cordial sympathy in their bereavement."

B. HOWARD RAND,
Dean of Faculty.

THE *Nation*, in a late number, discusses the origin of the word *rickets*, as the name of a disease of children. It would seem to have been in popular use long before Dr. Glisson and some other physicians hit upon the somewhat similar "rachitis." The idea that it was derived from a Dr. Ricketts of Newbury, whose treatment of the disease was very effectual, can hardly be entertained for a moment. A much more probable source of it is quoted from an old writer,—namely, that it is an altered form of "wry-gates," *i.e.*, crooked goings, in allusion, of course, to the distorted hobbling of its victims.

THE classes at the Vienna School of Medicine are said to have fallen off greatly, by reason of the strictness of the examinations. One clinical teacher has no students at all to listen to him. Hyrtl has but four hundred, instead of six hundred as formerly; while Billroth and Arlt have respectively but forty, instead of about three hundred and fifty.

HOSPITAL AT JERUSALEM.—We see it stated that there is at Jerusalem a hospital, or rather, we should judge, a dispensary, under the auspices of the English Society. The institution would seem to be actively engaged in doing good, over seven thousand patients attending during the year, and about five thousand being visited at their homes.

UNITED STATES DISPENSATORY.—A new edition of this work is in preparation, and will be issued in a few months. It will be in accordance with the recent changes in the nomenclature, etc. of the Pharmacopœia.

AFTER many ineffectual efforts, dissections have been legalized in Canada, by a law similar, we believe, to that which obtains in several of our States.

DRS. FORDYCE BARKER and T. Gaillard Thomas, of New York, have been elected to honorary fellowship in the Obstetrical Society of London.

DR. DAVID C. SKERRETT, for many years a practitioner in this city, died recently, at a very advanced age.

M. JACQUEMIN, honorary physician-in-chief of Mazas (the Paris prison?), died recently, at the age of 77.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending February 15, 1873, were 309; 168 adults, and 141 minors. 9 were of bodies brought from the country; making the mortality of the city 300. Among the causes of death were:

Consumption of the Lungs	68
Other Diseases of the Respiratory Organs	55
Diseases of the Circulatory Apparatus	12
Diseases of the Brain and Nervous System	48
Diseases of the Digestive Apparatus	20
Zymotic Diseases (1 from Smallpox)	19
Typhoid Fever	4
Casualties	8
Cancer	4
Debility (including "Inanition" and "Marasmus")	25
Still-born	14
Old Age	13

(The interments reported for the week ending February 17, 1872, were 467.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Feb. 9	32.0°	15.0°	30.13 in.
" 10	24.5	11.5	30.44 in.
" 11	44.0	31.5	30.10 in. (Slight rains.)
" 12	37.0	29.0	29.96 in. (Rain and Snow.)
" 13	32.0	22.0	30.21 in. (Snow.)
" 14	34.0	18.5	30.54 in.
" 15	40.5	24.0	30.63 in.